

# Fluid control valve(2/2way)

## 2V Series



### Symbol



### Product feature

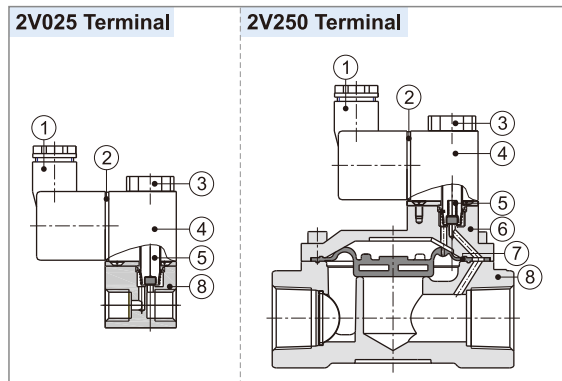
#### 2V025 series

1. Direct acting and normally closed type 2/2 way solenoid valve. Its high sensitivity allows it to change direction quickly.
2. The structure is small and compact.
3. The valve body is made of brass which is heat resistance and the coil conforms to Class B classification. The seals are made of fluorine rubber (VITON) which is suitable for several types of working medium.

#### 2V130 and 250 series

1. This 2/2 way diaphragm piloted solenoid valve has low energy consumption and large air flow.
2. The starting pressure is low and the Min. operational differential pressure is 0.05MPa.
3. The valve body is made of brass which is heat resistance and the coil conforms to Class B classification. The seals are made of NBR.

### Inner structure



| No. | Item             | No. | Item              | No. | Item      |
|-----|------------------|-----|-------------------|-----|-----------|
| 1   | Connector        | 4   | Coil              | 7   | Diaphragm |
| 2   | Connector gasket | 5   | Armature assembly | 8   | Body      |
| 3   | Coil nut         | 6   | Body cover        |     |           |

### Ordering code

2V 025 08 A □ □



| ① Model                                   | ② Orifice size | ③ Port size          | ④ Voltage                                                  | ⑤ Electrical entry                  | ⑥ Thread type               |
|-------------------------------------------|----------------|----------------------|------------------------------------------------------------|-------------------------------------|-----------------------------|
| 2V: 2 port 2 position fluid control valve | 025: Φ2.5mm    | 06: 1/8"<br>08: 1/4" | A: AC220V<br>B: DC24V<br>C: AC110V<br>E: AC24V<br>F: DC12V | Blank: Terminal<br>I: Grommet[Note] | Blank: PT<br>G: G<br>T: NPT |
|                                           | 130: Φ13mm     | 10: 3/8"<br>15: 1/2" |                                                            |                                     |                             |
|                                           | 250: Φ25mm     | 20: 3/4"<br>25: 1"   |                                                            |                                     |                             |

[Note] The wire length is 0.5m.

### Specification

| Model             | 2V025-06                 | 2V025-08 | 2V130-10                  | 2V130-15 | 2V250-20 | 2V250-25 |
|-------------------|--------------------------|----------|---------------------------|----------|----------|----------|
| Fluid             | Air. Water. Oil          |          |                           |          |          |          |
| Acting            | Direct acting            |          | Internally piloted acting |          |          |          |
| Initial state     | Normally closed          |          |                           |          |          |          |
| Orifice size (mm) | 2.5                      | 2.5      | 13.0                      | 13.0     | 25.0     | 25.0     |
| Cv                | 0.23                     | 0.25     | 6.20                      | 6.20     | 13.00    | 13.00    |
| Port size [Note]  | 1/8"                     | 1/4"     | 3/8"                      | 1/2"     | 3/4"     | 1"       |
| Viscosity limit   | Under 20CST              |          |                           |          |          |          |
| Pressure range    | 0~1.0MPa(0~145psi)       |          | 0.05~1.0MPa(7~145psi)     |          |          |          |
| Proof pressure    | 1.5MPa(215psi)           |          |                           |          |          |          |
| Material body     | Brass with nickel plated |          | Brass                     |          |          |          |
| Seal material     | VITON                    |          | NBR                       |          |          |          |
| Activating time   | 0.05 sec and below       |          |                           |          |          |          |

[Note] PT thread, G thread and NPT thread are available.

### Specification of coil

| Valve type     | Power type | Frequency (Hz) | Voltage range | Electrical entry | Power Consumption (VA/W) | Insulation | Temp.rise (°C) |
|----------------|------------|----------------|---------------|------------------|--------------------------|------------|----------------|
| 2V025          | AC         | 50             | ±15%          | Terminal Grommet | 7.0VA                    | Class B    | 35             |
| 2V130<br>2V250 | DC         | 60             |               |                  | 7.0W                     |            | 45             |

### Usable fluid

| Seal material\Fluid | Water | Dry air | Acetone* | ISOVG32 oil | Glycol* | Nitrogen | Heavy oil |
|---------------------|-------|---------|----------|-------------|---------|----------|-----------|
| NBR                 | ○     | ⊗       | △        | ⊗           | ○       | ⊗        | ○         |

| Seal material\Fluid | JIS# oil | JIS#3 oil | Vegetable Oil | Inorganic Oil | Start Oil | Silicagel Oil | CO <sub>2</sub> | Argon |
|---------------------|----------|-----------|---------------|---------------|-----------|---------------|-----------------|-------|
| NBR                 | ⊗        | ○         | ⊗             | ⊗             | ○         | ⊗             | ⊗               | ⊗     |

Note 1: ⊗= Excellent(nearly without affect). ○= Good(workable though some affect).

△= Poor(large affect).

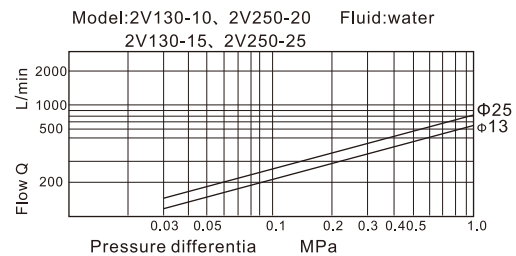
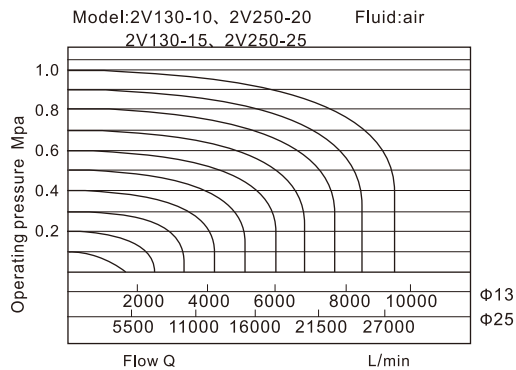
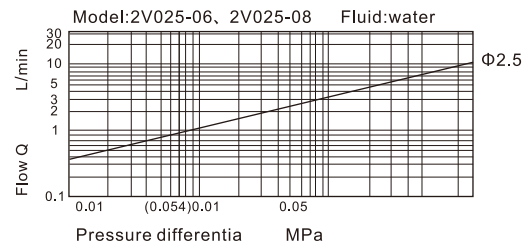
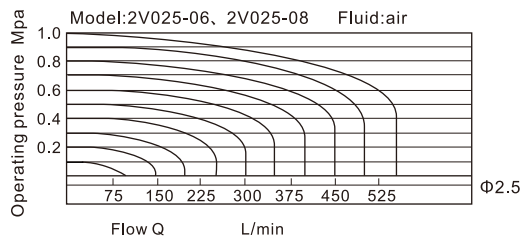
Note 2: "\*" means inflammable and explosive dangerous fluid. Please use the relative explosion proof coil.

Note 3: Please consult the technical department before using fluid that has not been shown in the above table.

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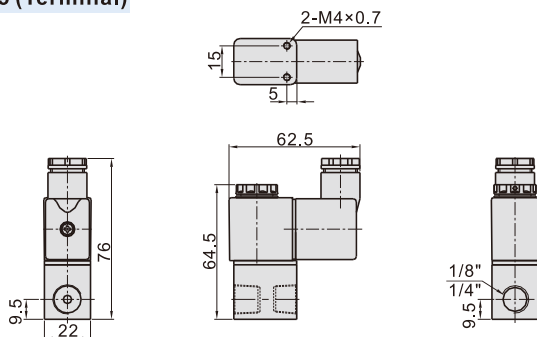
## 2V Series

### Flow chart

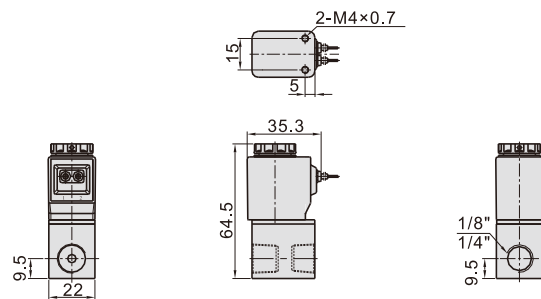


### Dimensions

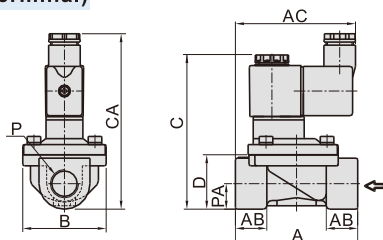
#### 2V025 (Terminal)



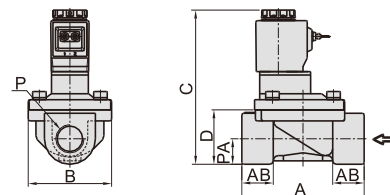
#### 2V025 (Grommet)



#### 2V130\250(Terminal)



#### 2V130\250 (Grommet)



| Model\Item | A   | AB   | AC | B    | C     | CA  | D  | P    | PA |
|------------|-----|------|----|------|-------|-----|----|------|----|
| 2V130-10   | 72  | 18.5 | 71 | 49   | 91    | 103 | 32 | 3/8" | 15 |
| 2V130-15   | 72  | 18.5 | 71 | 49   | 91    | 103 | 32 | 1/2" | 15 |
| 2V250-20   | 102 | 23   | 74 | 77.5 | 107.5 | 120 | 45 | 3/4" | 21 |
| 2V250-25   | 102 | 23   | 74 | 77.5 | 107.5 | 120 | 45 | 1"   | 21 |